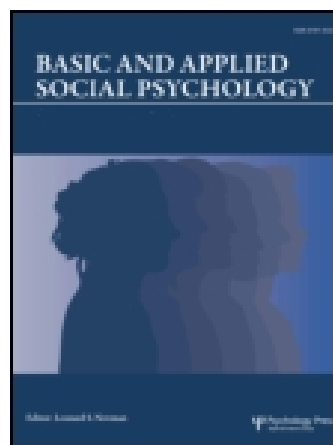


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## Basic and Applied Social Psychology

Publication details, including instructions for authors and subscription information:

<http://www.tandfonline.com/loi/hbas20>

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Published online: 23 Jul 2014.

To cite this article: Costanza Scaffidi Abbate, Stefano Boca, Giuliana Spadaro & Angelo Romano (2014) Priming Effects on Commitment to Help and on Real Helping Behavior, Basic and Applied Social Psychology, 36:4, 347-355, DOI: [10.1080/01973533.2014.922089](https://doi.org/10.1080/01973533.2014.922089)

To link to this article: <http://dx.doi.org/10.1080/01973533.2014.922089>

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# Priming Effects on Commitment to Help and on Real Helping Behavior

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Years of research on bystander apathy have demonstrated that the physical presence of others can reduce the tendency to help individuals needing assistance. Recent research on the *implicit bystander effect* has suggested that simply imagining the presence of others can lead to less helping behavior on a subsequent unrelated task. The present study was designed to contribute to previous findings on the implicit bystander effect by demonstrating these effects on *commitment to help* and on *real helping behavior*, rather than simply on *intentions to help*. Studies 1a and 1b demonstrate that merely priming participants with the construct of being in a group at Time 1 created significantly less commitment to future helping on a subsequent task at Time 2. Study 2 aimed to extend this effect to behavioral measures and verified that participants exposed to a group prime helped less than those who were exposed to a single-person prime. The implications of these findings for the literature on the bystander effect are discussed.

The classic *bystander apathy* effect is a stable phenomenon commonly observed in lab and field experiments. It consists of the inhibition of helping responses in the presence of observers (Clark & Word, 1974; Darley & Latané, 1968; Darley, Teger, & Lewis, 1973; Latané & Nida, 1981). Research on bystander intervention has revealed that the higher the number of people watching a request for help, the lower the probability that each nearby individual will actually help. Latané and Darley (1970) identified three psychological processes that may account for bystanders' tendency to inhibit one another's responsiveness in emergencies. The first is *diffusion of responsibility*, a process that leads to reducing psychological costs associated with nonintervention. When others are present, such costs are shared and nonintervention becomes more probable. As the number of bystanders increases, each individual feels less responsible to help. The second process is *evaluation*

*apprehension*, which reflects the notion that people may have a fear of being judged by other bystanders when acting in public. Thus, when one feels he is observed, he fears making a mistake and creating the impression of inadequacy; this in turn makes him more reluctant to intervene in a critical situation. Finally, the third process refers to the concepts of *social influence* (Darley & Latané, 1968; Darley et al., 1973) and *pluralistic ignorance* (Prentice & Miller, 1996), which recognizes that when an apparent helping situation is ambiguous, people look to others to interpret it. Thus, if other people are standing idly and appear quiet, would-be helpers deduce that the situation may not be an actual emergency.

A recent theoretical development concerning the bystander effect moves the level of explanation from situational variables to cognitive processes (Garcia & Harrison, 2007). Research has shown that simply imagining a particular social context can have the same effect as actually experiencing that context. In fact, Garcia, Weaver, Moskowitz, and Darley (2002) found that merely priming the presence of a group can affect helping behavior on a subsequent task. The authors

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named this phenomenon *the implicit bystander effect*. Although classic accounts assumed that would-be helpers must be present in the helping behavior situation for bystander apathy to occur, the implicit bystander effect reveals that a similar decrease in intervening can be found even when would-be helpers are not built into the facets of the helping situation. Over a series of five studies, Garcia et al. (2002) showed that just imagining being in a large group led to less helping behavior on a subsequent task. For example, participants who imagined dining in a restaurant with 10 other people were subsequently less likely to help the experimenter by participating in a second study than those who imagined dining with just one other person.

The effect of imagining a social context on subsequent attitudes and behavior may be explained in terms of *priming effects*. There is considerable evidence that subtle cues, or *primes*, in our social environment activate associated knowledge structures in our minds. As these knowledge structures become more accessible in memory, they often have a powerful influence on our cognitive processes and behaviors. According to Garcia et al. (2002), activating a social context has a similar effect and increases the accessibility of associated mental representations. Imagining themselves in a crowd, for example, could activate in people feelings of being lost in a crowd and unaccountable, feelings associated with less helping behaviors in real situations. The authors explained this erosion of responsibility by referencing classic deindividuation theory (Diener, 1980; Zimbardo, 1969). They proposed that

being in or simply thinking about a group is enough to activate this construct [the bystander effect] because part of the concept of being in a group is the notion of being lost in a crowd, being deindividuated, and having a lowered sense of personal accountability. (p. 845)

In the current research, previous implicit bystander effect findings were replicated. But unlike Garcia et al.'s (2002) research, in which the authors assessed, above all, participants' behavioral intentions rather than their actual behavior, here the focus is on *commitment to help* (Studies 1a and 1b) and on *real helping behavior* (Study 2) as dependent variables.

### WHY COMMITMENT?

With few exceptions (e.g., Macrae & Johnston, 1998; Scaffidi Abbate, Ruggieri, & Boca, 2013), in most research concerning the effect of priming on prosocial behavior, a generic *intention to help* is usually assessed (Garcia et al., 2002; Greitemeyer, 2009; Nelson &

Norton, 2005; Pichon, Boccato, & Saroglou, 2007; Rubin, 2011).<sup>1</sup> It is well-established in the literature that intentions lead to behavior in such a way that the stronger the intention, the higher the probability of observing the corresponding actual behavior. Nevertheless, when helping behavior has been assessed simply through the willingness of the participants to make a donation to an annual charity or by asking participants if they are willing to take part in a second experiment, participants may simply comply with experimenters' requests without truly intending to donate or participate in another experiment.

In an attempt to go beyond mere declared intention, we employ a measure of *commitment to help* as a dependent variable. Imagine, for example, measuring whether participants are willing to donate money to charity. Participants are told to imagine a fund-raising event for charity and to indicate in a questionnaire how much they eventually want to give. This should be a measure of intention to donate. But imagine instead that participants are told not only to mark their willingness to donate but also to send to the research staff an e-mail with their personal information so that they could be contacted to make that donation. In this second case, the participants' overt behavior attests to their intention to help. We assume that in this case, what we are measuring is commitment to donate. Commitment has been described as the pledging or binding of the individual to behavioral acts (Cioffi & Garner, 1996; Kiesler & Sakumura, 1966). In the current example, participants not only express an intention to give a certain sum to charity but also really do something (send an e-mail with personal information) that should signify to others that they are more intent on engaging in related behavior (Cialdini, 2001).

It seems established that commitment generally has a strong link with behavior (Lokhorst, Werner, Staast, van Dijk, & Gale, 2013; Katzev & Wang, 1994) and that the effect of commitment may last for an extended period (Cioffi & Garner, 1996; Nelson & Norton, 2005). Regarding prosociality, Nelson and Norton (2005) found that priming participants with the concept of

<sup>1</sup>Garcia et al.'s (2002) measure of helping behavior was the willingness to contribute an annual donation (Studies 1 and 2) and to agree to participate in a second experiment (Study 3). Nelson and Norton (2005) operationalized helping by asking participants to evaluate their behaviors in some hypothetical situations (Studies 1a and 1b) and by asking them to participate in a second experiment (Study 2). Pichon et al. (2007) tested the impact of subliminal priming of religious concepts essentially on prosocial behavioral intentions; their measure was "how many pamphlets participants had taken in order to distribute them" but the authors did not actually measure if participants really would have distributed all the pamphlets. One of the exceptions is the research by Macrae and Johnston (1998) that used a measure of real helping behavior, recording how many leaking pens participants picked up.

“superhero” resulted in an increased commitment to volunteer, and this improved commitment lasted for weeks. The general idea is that when people commit to a certain behavior, they adhere to their commitment and this produces long-term behavior change. Furthermore, as shown by the literature on commitment, some specific conditions are particularly effective in triggering compliance (Cialdini & Goldstein, 2004). In particular, it has been demonstrated how taking a decision in an active rather than passive way (Cialdini & Trost, 1998; Cioffi & Garner, 1996), or publicly rather than privately (Kiesler, 1971; Nyer & Dellande, 2010) increases the likelihood of future compliance.

## OVERVIEW OF THE STUDIES

Study 1 was designed to test the hypothesis that priming a scenario where many people are present (in addition to the participant in the experiment) diminishes the commitment to help compared to priming a scenario where only one other person is present (in addition to the participant in the experiment). In Study 1a, visual stimuli (pictures) were used; Study 1b was conducted using as primes auditory stimuli (listening to a group discussion vs. listening to a monologue) as in some classical bystander effect research (e.g., Darley & Latané, 1968) in which participants were sitting in a cabin with a microphone and a loudspeaker and heard a varied number of people making their presence manifest through their voices. In both experiments, besides commitment, a measure of intention to help was assessed as dependent variable. Study 2 was conducted to generalize the implicit bystander effect to real helping behavior. Again, the central hypothesis was that participants primed with the presence of others would offer less helping behavior.

In line with the majority of studies on classic bystander effect, in which this phenomenon was mainly analyzed in nondangerous and nonviolent emergencies (see Fischer, Greitemeyer, Pollozek, & Frey, 2006; Fischer et al., 2011),<sup>2</sup> in the studies reported next our focus is on the occurrence of the implicit bystander effect in situations that do not represent a dangerous

situation and wherein the sufferers’ needs do not result from risky situations.

## STUDY 1A

Similar to Garcia, Weaver, Darley, and Spence’s (2009) procedure, participants were asked to imagine themselves either in a crowded movie theatre (*group condition*) or in an empty movie theatre with just one friend (*one-person control condition*). In the *neutral control condition*, participants were not primed. The hypothesis is that participants primed with the crowded cinema scenario (*being in a group condition*) would show less intention to help and should be less committed to help, compared both to the participants primed with the empty cinema and to participants not primed (the two *control conditions*).

### Method

**Participants.** A total of 881 (455 women, 426 men; *M* age = 24 years) undergraduate students participated in a between-participants online experiment. Participants were recruited by an advertisement posted by faculty members on social networks and were randomly assigned to one of three conditions: the *being in a group condition*, the *one-person control condition*, and a *neutral control condition*.

**Materials and procedure.** The experimental procedure consisted of two parts. First, participants were informed that they would participate in a “visual attention and memory experiment.” They were instructed to pay attention to a video presentation and to answer a few questions about it afterward. After the instruction, participants were then exposed to a video presentation describing an ordinary situation of being in a movie theatre when a movie was about to start. The video presentation consisted of 10 pictures that automatically followed one after the other in a fixed order. Two different versions of the presentation were created: the first one was designed to prime the construct of *being in a group*; the latter was designed to prime the construct of *being with just another person*.

In the group priming condition, participants were asked to imagine themselves inside a crowded movie theatre while some pictures illustrated this situation. In the one-person control condition, participants were asked to imagine themselves inside an empty theater with just one friend. Thus some pictures depicted rows of empty seats with just two persons sitting next to one another. After the manipulation, participants completed what they believed to be the response form, which

<sup>2</sup>Fischer et al. (2006) pointed out that only a small amount of research on the bystander effect has confronted subjects with an emergency caused by a violent crime with potentially unsafe consequences for the bystander and the victim. In most cases, the problem of the victim was generally viewed as an impersonally caused accident (e.g., falling bookcases, Latané & Rodin, 1969; theft of books, Howard & Crano, 1974), as a physical illness (e.g., nervous seizures, Darley & Latané, 1968), or in the virtual world (Blair, Foster Thompson, & Wuensch, 2005). Further, Fischer et al.’s (2011) meta-analytic review on bystander intervention in dangerous emergencies revealed that the effect is moderate when the emergency is a dangerous one.

contained a few filler questions about the video presentation.

Analogous to the procedures used in other research, after the priming phase, participants completed the purportedly unrelated dependent measure (Dijksterhuis & Bargh 2001; Dijksterhuis & van Knippenberg, 1998). Participants in the neutral control condition went directly to this second phase in which all participants read the following prompt on the computer monitor:

A student needs help because he has to urgently find people who are willing to participate in another experiment in the laboratory. Are you available to go to the experimental laboratory in a couple of days? Using the mouse, please click the initial letter (Y vs. N) that corresponds with your intention.

Thus, behavioral intentions were recorded. In the event that the participant manifested an affirmative intention to take part in the experiment, the commitment variable was recorded through an additional screenshot in which participants read the following:

Now, you should send an e-mail from your own account to the address that appears on the screen with all your personal information and your phone number so we can arrange an appointment. Tomorrow, you will be contacted by the research team in order to schedule a date and time for the experiment.

Because the experimental procedure required that subjects were alone in front of their own computers, it was possible for the participants (who initially answered "yes") to refrain from sending their e-mails, personal details, and phone numbers at the end of the experimental session. After completing the dependent measure, participants were thanked and debriefed.

## Results

Globally, the intention to help exceeded the commitment to help (22% vs. 15%). Almost 32% of participants who reported readiness to take part in a second experiment hesitated when asked to commit by sending an e-mail containing their phone numbers and contact information.

According to the main hypothesis of this study, participants primed with the construct of being in a group (group condition) would show less commitment to help, thus sending fewer agreement e-mails to the research team, compared with participants in both control conditions. Chi-square tests were used to test this prediction. Priming the sensation of being in a group significantly altered the rate of commitment, compared to both control conditions,  $\chi^2(1, N=547)=4.22$ ,  $p=.04$  and  $\chi^2(1, N=662)=11.59$ ,  $p=.001$ , respectively

TABLE 1  
Frequency and Percentage of Commitment in All  
Three Conditions (Study 1a)

| Conditions       |          | Commitment |       | Total |
|------------------|----------|------------|-------|-------|
|                  |          | Yes        | No    |       |
| Prime group      | <i>N</i> | 33         | 295   | 328   |
|                  | %        | 10.1%      | 89.9% | 100%  |
| Prime one person | <i>N</i> | 65         | 269   | 334   |
|                  | %        | 19.5%      | 80.5% | 100%  |
| No prime         | <i>N</i> | 35         | 184   | 219   |
|                  | %        | 16%        | 84%   | 100%  |
| Total            | <i>N</i> | 133        | 748   | 881   |
|                  | %        | 15.1%      | 84.9% | 100%  |

for the no-prime and one-person control condition. Control conditions did not differ statistically from one another,  $\chi^2(1, N=553)=1.08$ ,  $p=.29$ . Table 1 shows the frequency of commitment in all three conditions.

The frequency of behavioral intentions was submitted to the same analysis. No significant differences emerged from the analyses of intentions. Helping intentions following the priming of a crowded movie theater (20.7%) did not differ from helping intentions after priming a scenario with only one person (22.8%),  $\chi^2(1, N=662)=.39$ ,  $p=.52$ , or from helping intentions assessed without any prime (23.3%),  $\chi^2(1, N=547)=.51$ ,  $p=.47$ .

Given that commitment was required only for those respondents who manifested the intention to help, it is interesting to look at the proportion of commitment among those participants. In the one-person control condition, 85.5% of the participants who intended to help effectively provided their contact information so that they could be recruited in a subsequent study, whereas in the group condition, this percentage dropped to 48.5%,  $\chi^2(1, N=144)=22.59$ ,  $p<.001$ .

## STUDY 1B

The aim of Study 1b was to replicate the effect of the presence of an implicit bystander, showing that the sensation of being in group can also be activated by auditory stimuli. Auditory priming is ecologically valid and not just a manipulation designed for laboratory research. It is also the case that in real life, visual information will not always complement auditory information. Again, we hypothesized that participants primed with the construct of a group (group condition) would show less intention to help and would be less committed to taking part in a subsequent experiment, compared to participants in control conditions who were primed with the construct of being with just another person (one-person control condition).

## Method

**Participants.** A total of 109 (50 women, 59 men;  $M$  age = 25 years) undergraduate students recruited by an advertisement posted on faculty members' social networks took part in a between-subjects online experiment.

**Materials and procedure.** The experimental procedure was analogous to that of Study 1a, except that audio tracks were used to prime the concept of being in a group or to prime the construct of being with just another person. Thus, participants were informed that they would participate in an "auditory attention and memory test" and were asked to listen carefully to the speech to be able to answer a few questions afterward. Following the instructions, participants were exposed to the priming audio track. Two versions of the track were created—one for each condition—with the purpose of priming the constructs of being in a group or being with just another person. Because the two control conditions did not differ in Study 1a, the neutral control condition was not used. On all of the tracks, subjects listened to the same advice about "things to consider before purchasing a telescope." The implicit presence of a group versus one person was manipulated by changing the number of people who were talking about telescopes. More specifically, in the group condition, participants were exposed to a conversation among six people, while in the one-person condition, all of the advice was read by the same voice. The audio track lasted for 80 s. Afterward, a link to a response form appeared, containing a few filler questions about things to consider before purchasing a telescope.

Once participants completed the response form, the dependent measures (intention and commitment) were assessed in a way completely identical to Study 1a.

## Results

Globally, the intention to help exceeded the commitment to help (31.2% vs. 11%). A consistent percentage of participants (64.7%) declared that they were ready to take part in a second experiment in a few days. But when asked to commit by sending an e-mail containing their phone numbers and contact information, they usually hesitated.

As reported in Table 2, participants who listened to the monologue prime (one-person condition) were more committed (17.6%) to help than those who listened to the group discussion (group condition; 5.2%),  $\chi^2(1, N = 109) = 4.31, p = .038$ . No significant differences emerged from the analyses of intentions. In fact, helping intentions in the one-person condition (27.5%) did not

TABLE 2  
Frequency and Percentage of Commitment in the Two Different Conditions (Study 1b)

| Condition        |          | Commitment |       | Total |
|------------------|----------|------------|-------|-------|
|                  |          | Yes        | No    |       |
| Prime group      | <i>N</i> | 3          | 55    | 58    |
|                  | %        | 5.2%       | 94.8% | 100%  |
| Prime one person | <i>N</i> | 9          | 42    | 51    |
|                  | %        | 17.6%      | 82.4% | 100%  |
| Total            | <i>N</i> | 12         | 97    | 109   |
|                  | %        | 11%        | 89%   | 100%  |

differ from helping intentions in the group condition (34.5%),  $\chi^2(1, N = 109) = .62, p = .42$ .

As the data show, the percentage of committed participants decreased from almost 18% in the one-person condition to 5.2% in the group conversation condition. Looking at the frequency of the intention to help, it can be seen that the percentage of subjects who expressed a positive intention varied from 34% in the being-in-a-group condition to almost 28% in the one-person condition. Because commitment was required only for those participants who gave their intention to help, we again looked at the proportion of commitment among those who intended to help. In the one-person control condition, 64.3% of the participants who intended to help effectively provided their contact information so they could be recruited in a subsequent study; this percentage dropped to 15% in the group condition,  $\chi^2(1, N = 34) = 8.75, p = .003$ .

## Discussion

These analyses revealed that participants who were primed with the construct of a group showed less intention to help and were less committed to taking part in a subsequent experiment, consistent with the implicit bystander effect. Further, the findings suggest that the intention to help is not always followed by a commitment to help. The rationale is that commitment requires participants to engage, write an e-mail, and send personal information, whereas manifesting the intention to help requires only flagging a checkbox. Moreover, after checking the box, participants may change their minds without consequences, but changing their minds after having sent their personal information—that is, after having committed—may cause moral self-criticism and reprehension. It was assumed that, for these reasons, not all of the participants who declared their intention to help were committed to the task.

Although the literature has shown that asking people's stated intention to do something increases their

probability of doing it (e.g., Sherman, 1980), this may be less true for private and low-effort intention expressions consisting of, for example, simply flagging a checkbox in an online form. In such cases, it seems plausible to argue that social desirability plays an important role, pushing respondents to agree to take part in a future experiment. Things are different if they have to take an active part and do something more binding—in this case, sending an e-mail—to let the experimenter know that they would be available for a future psychological experiment. Commitment may be less sensitive to the effect of social desirability, and for this reason, it is likely to result in more consistent behavior compared to the mere manifestation of intentions.

Understanding how best to obtain a commitment so that diffusion of responsibility will not occur could be of great value. Cioffi and Garner (1996) demonstrated that making a volunteer decision by doing something results in more commitment than making the identical decision by doing nothing. Similarly, Pardini and Katzev (1983) found that commitment can be increased by seeking a written pledge. More recently, He, Chen, and Alden (2012) found that people allocated more resources to “help-others” (vs. “help-self”) health activities when their decisions were public than when their decisions were private. Specularly, our point of view is that the reduced personal involvement triggered by the group prime can be compared to the situation in which a person commits in a passive way verbally or privately and, consequently, can lead to greater diffusion of responsibility on a subsequent task.

## STUDY 2

Although Studies 1a and 1b showed the implicit bystander effect on *commitment to help*, it is important to demonstrate that it appears also when *real helping behavior* is assessed. Again, results from the group condition were compared with results from a control condition in which participant imagined themselves in a hypothetical situation with another person.

### Method

**Participants.** A total of 109 undergraduate students (57 women, 52 men; *M* age = 24 years) who were not enrolled in psychology courses took part in Study 2. They were randomly assigned to one of the two priming conditions (prime: group vs. one-person).

**Material and procedure.** Participants were run individually and did not meet until the end of the data collection period. The experimenter welcomed each participant and explained that he or she would take a visual

attention test. The priming procedure was analogous to that of Study 1a. Again, in the being in a group priming condition, participants were asked to imagine themselves inside a crowded movie theatre while some pictures illustrated this situation. In the one-person control condition, participants were asked to imagine themselves inside an empty theater with just one friend while some pictures depicted rows of empty seats with just two persons sitting next to one another. Also in this case, after the priming manipulation, participants completed what they believed to be the response form, which contained a few filler questions about the video presentation.

Once the first phase was completed, a second phase began including the measure of the dependent variable—that is, helping behavior. The participant, once he or she completed the alleged “visual attention and memory test,” came out of the lab and crossed paths with a student (actually, a confederate) who came from another lab door and made the request for help. Specifically, the confederate explained that he had to complete data coding questionnaires into a Microsoft Excel spreadsheet file by the afternoon because his thesis tutor (at this point the confederate named a professor in the department of psychology) wanted the file submitted later that day. Participants were told that it was the last day to present the experiment data file to the secretary’s office; the submission served as a sort of registration for the thesis of the following month (usually the manuscript itself can be presented later). The problem was that he had seen, from the window of the lab, a tow truck taking his car away. Before 6 p.m., he had to retrieve the car from the parking lot where towed vehicles were taken. This was the basis for the help request. The confederate then asked the subject if he or she would insert data into an Excel spreadsheet while he (the confederate) went to retrieve his car. If participants agreed, they entered the lab and received the data-coding instruction. Participants were also told that they could leave whenever they wanted to do so.

**Behavioral measure.** As a measure of dependent variables, we considered a dichotomous variable (whether or not participants were ready to help) and the number of questionnaires coded in the data file. Participants were allowed to enter all the questionnaires they wanted without any time limit.<sup>3</sup>

### Results and Discussion

We analyzed the frequency of participants giving help as a function of priming condition. Considerably fewer

<sup>3</sup>No case limit occurred; that is, no participants entered an exceptionally large number of questionnaires.

participants in the group priming condition (51.9% of the 54 participants) agreed to help the confederate in coding questionnaire data compared to the one-person priming condition (70.9% of the 55 participants),  $\chi^2(1, N = 109) = 4.17, p = .04$ .

As previously mentioned, we also recorded the number of questionnaires coded in the data file in the two different experimental conditions. In this analysis, participants who did not give any help were counted as “zero questionnaires inserted” instead of eliminating them from the analysis. A one-way analysis of variance showed that participants exposed to the group priming condition ( $M = 7.46, SD = 8.61$ ) inserted significantly fewer questionnaires than subjects in one-person priming condition ( $M = 12.35, SD = 10.73$ ),  $F(1, 108) = 6.84, p = .01$ .

The aim of this study was to demonstrate that implicit bystander effect may influence real helping behavior. The results support this hypothesis. Participants who imagined a group of people at Time 1 offered less assistance at Time 2 than the control participants who imagined one other person. It is interesting to note that the imagined situation is significantly different and completely independent from the context in which the request for help came. Nevertheless, having a group of people in mind seems enough to trigger bystander apathy in a completely unrelated situation.

## GENERAL DISCUSSION

The present research adds to the existing literature by replicating and extending the effect documented by Garcia and coworkers (Garcia et al., 2009; Garcia et al., 2002) whose main point was that bystanders do not necessarily have to be physically present but that the psychological salience of any number of others can be a sufficient condition to produce bystander-effect-like results. As noted previously, most of the research on automaticity in the prosocial behavior area tested the impact of priming on helping intentions. In placing our emphasis on commitment to help (Studies 1a and 1b) and on real helping behaviors (Study 2), our findings significantly extend past research showing that the activation of the construct of being in a group inhibits prosocial responses on a subsequent task.

It is true that the boundary between intention and commitment is not always sharp, yet it is possible to express an intention with a minimum of commitment or with greater commitment.<sup>4</sup> Likely, the strength of

the commitment varies also according to the way in which the intention is assessed. Further, there are cases in which adhering to the experimenter's requests is quite easy. But when people are asked to do something that would make explicit and visible their intentions, the ease of following through on simple intentions should be attenuated, as people are not always able or willing to commit so strongly. In fact, it is noteworthy that Study 1 revealed only small and statistically non significant priming effects on helping intentions, unlike the findings of Garcia and colleagues (Garcia et al., 2009; Garcia et al., 2002) findings. Given the wide use of behavioral intention in the domain of helping behavior, it may be surprising that no implicit bystander effect on this variable emerged in Study 1. As we discussed earlier, however, social desirability can be a plausible explanation considering the experimental procedure adopted. Commitment to a behavior is probably less likely as a result of mere compliance with the experimenter's request; is a more robust measure; and, for this reason, is likely to result in more consistent behavior compared to the mere statement of intentions.

We think an effort should be made to increase the external validity of experiments on the implicit bystander effect by assessing real-life, prosocial behavior. Although commitment to help is closer to helping behavior than behavioral intentions are, it is still not a real behavioral measure. This is the rationale that led us to Study 2. Generally speaking, a wider use of behavioral measures of prosocial behavior would undoubtedly make the operation of data collection more complicated (Scaffidi Abbate, Isgrò, Wicklund, & Boca, 2006). Nevertheless, this is a necessary option for attaining a better understanding of helping.

The precise processes mediating the implicit bystander effect are still under investigation. Past research has shown (Garcia et al., 2002, Studies 4 and 5) that simply imagining a group can lead to facilitated responses to words associated with *unaccountable* in a lexical decision task. Thus, increased accessibility of the concept *unaccountable* may be the mechanism by which priming the presence of others leads to less helping on a subsequent task. In other words, people who imagine group situations have the concept of unaccountability triggered, and this leads them to identify the event as one that does not need help. However, the effect of imagining people who are not physically present is not peculiar to helping behavior. For example, Turner, Crisp, and Lambert (2007) found that simply imagining contact with out-group members can improve intergroup attitudes. It is also true that the mechanism through which group primes exert an influence could be more direct and unmediated. Literature on the automaticity of social behavior (Bargh, Chen, & Burrows, 1996; Dijksterhuis & van Knippenberg, 1998) indicates

<sup>4</sup>For example, Pardini and Katzev (1983) found that *strong commitments*, where subjects signed a statement saying their household would participate in a project on newspaper recycling, appeared to be more effective than *minimal commitments*, where subjects were asked to make a verbal commitment to recycle. The results indicated that the stronger the commitment, the greater the degree of recycling.



that, in some circumstances, priming a concept automatically activates related behavioral schemas. As such, it is also possible that priming groups directly trigger behavioral manifestations of unaccountability, which in turn interfere with a helping response.

Last, the obtained results provide evidence for the consistency and replicability of priming effects. Recognition of the importance of direct replication seems to be rapidly growing. Behavioral priming has always been a controversial topic in social cognition. How the activation of social constructs via priming can affect behavior, how reliable these effects are, and how strong of a role they may play in real-life situations are all questions that have recently been debated in the literature (Bargh, 2012; Cameron, Brown-Iannuzzi, & Payne, 2012; Doyen, Klein, Pichon, & Cleeremans, 2012; Harris, Coburn, Rohrer, & Pashler, 2013). For example, Doyen et al. (2012) showed that even some of the most cited experimental results—like those of Bargh et al. (1996), in which participants unwittingly exposed to the stereotype of old age walked slower when exiting the laboratory—may be affected by apparently unrelated variables like the experimenters' expectations. Thus, although automatic behavioral priming seems well established in the social cognition literature, additional research on the reproducibility of priming effects is clearly in order.

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